



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Merrill et al

Application No.:

09/329,502

Filed:

June 10, 1999

Examiner:

Thuan Dang

Group No.:

1764

For:

AROMATIC CONVERSION PROCESS

## Via First Class Mail

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

## CERTIFICATE OF FIRST CLASS MAILING

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Signature

Date of Signature

REQUEST FOR REHEARING

This is a request for rehearing of the Board's Decision of September 30, 2002, affirming the rejection of claims 1-6, 8-13 and 18-20 under 35 U.S.C. § 103 based upon Patent No. 5,325,877 to West, and claims 1-6, 8-13 and 15-21 on the grounds of obviousness-type double-patenting in view of claims 1-20 of Patent No. 5,955,642 in view of West.

As an initial matter, it is noted that claims 15-17 and 21 were rejected in the final rejection only on the grounds of obviousness-type double-patenting, and that a Terminal Disclaimer against Patent No. 5,955,642 signed by William D. Jackson, attorney of record, was submitted on January 22, 2001, concurrently with appellants' primary brief. In this respect, the Examiner's statement that the terminal disclaimer was not submitted by an attorney-of-record is in error, as evidenced by the power of attorney in this application filed on July 16, 1999.

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Appended to this Request for Rehearing are copies of the Terminal Disclaimer and the power of attorney, showing on its face that the Terminal Disclaimer was submitted by an attorney-of-record.

While in retrospect, appellants' reply brief should have pointed out that the terminal disclaimer was signed by an attorney-of-record, the fact remains that the record in this application unequivocally shows that the Terminal Disclaimer was properly signed by an attorney of record as stated and that as of its submission, there remained no obviousness-type double-patenting rejection. In fact, the Examiner's Answer points out "Once, a proper terminal disclaimer is submitted to overcome the double-patenting rejection, claims 21 and 15-17 should be allowed." Since, on the record in this application, the Terminal Disclaimer filed on January 22, 2001, was a proper terminal disclaimer, there was, accordingly, no viable rejection based upon obviousness-type double-patenting. Accordingly, it is respectfully submitted that the Board's decision, to the extent it affirms a rejection which was not in existence, should be reconsidered and withdrawn.

Turning now to the rejection of the claims under 35 U.S.C. § 103 based upon the patent to West, appellants would respectfully submit that the decisions errs in finding a *prima facie* case of obviousness under 35 U.S.C. § 103. The lynchpin of the § 103 rejection is based upon the determination that appellants' arguments based upon the calculations presented on pages 7-9 of the brief and page 2 of the reply brief amount to mere arguments of counsel. Appellants would respectfully disagree. Appellants' specification on page 9 specifically points out the inverse relationship between porosity and surface area for a molecular sieve catalyst:

"As will be recognized by those skilled in the art, the surface area of a molecular sieve catalyst provides an inverse measurement of

its porosity, that is, surface area is inversely proportional to its porosity."

This relationship between surface area and porosity as stated in appellants' specification is a scientific fact, which has never been rebutted or otherwise addressed by the Examiner during prosecution of this application. The mathematical calculations presented in appellants' brief on pages 8 and 9 are straightforward and are based upon the above scientific fact as stated in appellants' specification. The calculations found in Appellants' brief were also presented in appellants' amendment filed October 25, 2000. This inverse relationship between porosity and surface area was not disputed by the Examiner in the subsequent advisory action nor in the Examiner's answer. Absent challenge by the Examiner, the above-quoted statement in page 9 of the specification should be accepted as accurate. In this respect, attention is respectfully invited to *In re Marzocchi*, 169 U.S. PQ 367 (CCPA 1971), where the court in reversing a rejection under 35 USC § 112 stated, "... it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement."

In regard to the West Example 1 as addressed in the decision, it is noted that the surface area of the starting catalyst material is not given, and if a surface area is to be assigned, it would be reasonable to assign the surface area preferred in West, 500-700 sq. meters per gram, rather than assuming some minimum surface area. Moreover, regardless of the water present in the starting catalyst of Example 1, the water actually added brought the water content to 21 wt. %. Thus the amount of water added would necessarily be far in excess of the amount assumed in the calculations presented in pages 8 and 9 of the brief. Specifically following these calculations, if

water were added to increase the water content from 3 wt. % to 21 wt. %, this would involve the incorporation of 0.18 ml of water for each gram of zeolite. This would reduce the pore volume from the starting value by 0.18 ml/g resulting in a pore volume decrease of more than 50%, regardless of the starting pore volume, and a corresponding surface area increase of more than 100%. The pore volume of the catalyst in West example 1 would necessarily be much greater than the maximum value of 500 m<sup>2</sup>/g, or 400 m<sup>2</sup>/g as specified in claims 2, 3 and 20.

In regard to the comments in the decision respecting the statement found at the top of page 15 of the specification, it is believed clear that this statement is intended to distinguish the catalyst as it exists in its crystallite form, i.e., the surface are of the zeolite itself, as contrasted with the pelletized catalyst form with the binder. Further, the fact that the West catalyst can be hydrated by storage in humid air would not appear relevant to the amount of water added during hydration.

For the reasons advanced above, the Board is respectfully requested to reconsider its decision of September 30, 2002, and reverse the rejection of claims 1-6, 8-13 and 15-21.

The Commissioner is hereby authorized to charge our Deposit Account 12-1781 for any fees connected with this communication.

Respectfully submitted,

William D. Jackson

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Date: November 27, 2002

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